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Conference Abstract

From SIBiLS to Biodiversity PMC: Foundations for the One Health Library

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Abstract

One Health is an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals and ecosystems in compliance with the United Nations development goals (Dye 2022). However, premier life and health sciences digital libraries such as PubMed Central® tend to exclude or marginally include scientific publications about biodiversity. The exclusion is not specific to biodiversity but also includes related fields such as ecology and environmental sciences in general.

Leveraging the Swiss Institute of Bioinformatics Literature Services (SIBiLS), which are already mirroring MEDLINE (30+ million abstracts) and PubMed Central contents (5+ million full-text articles) from the the United States National institutes of Health's National Library of Medicine, as well as biodiversity-specific contents (e.g., Plazi's treatments and non-PMC articles from Pensoft), we will deliver a unique entry point to broadly search biodiversity publications, the so-called "Biodiversity PMC".

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We will demonstrate how the new resource can help answer a wide range of biodiversity questions. The demo will provides examples of users' information requests and how the new resource can help support biodiversity sciences. We will review the different search modalities of the new service: language-model powered Question-Answering; SPARQL endpoint; search in supplementary data files; exploration of biotic interactions (biotXplorer); and how these different modalities are connected to navigate accross the different services. The demo will follow a "Bring Your Own Questions" style and we encourage participants to identify a research question, as well as the corresponding factoid answers, and a traceable author statement as found in the literature (e.g., Where is *Potamopyrgus antipodarum* an invasive species? Answer: [Europe, North America]. Traceable author statement (source: Plazi TreatmentBank): "Native to New Zealand and its adjacent islands and invasive in North America and Europe (Winterbourn 1970; Kerans et al. 2005)."*[1]

Keywords

information retrieval, literature services, text mining, life sciences, health sciences

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Author contributions

Patrick Ruch: project leader, technical and software support of "Biodiversity PMC"

Donat Agosti, Lyubomir Penev, Teodor Georgiev: designed the services and co-developed the harvesting channels.

Quentin Groom: design of services

Emilie Pasche, Julien Gobeill, Esteban Gaillac, Déborag Caucheteur, Alexandre Flament: co-designed and developed the services.

Conflicts of interest

The authors have declared that no competing interests exist.

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Endnotes

*1 https://treatment.plazi.org/id/933C3E2E-FFE2-FF8D-FE5F-01C2FD37529E